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(Currently Amended) An adduct comprising $\text{MgCl}_2 \cdot (\text{EtOH})_m (\text{ROH})_n (\text{H}_2\text{O})_p$ wherein,

R is a $\text{C}_1\text{-C}_{15}$ hydrocarbon group excluding ethyl, optionally substituted with at least one group comprising a heteroatom;

n and m are indexes higher than 0, satisfying the equations $(n+m) \geq 0.7$ and $n/(n+m)$ ranges from 0.1 to 0.4 ~~$0.05 \leq n/(n+m) \leq 0.95$~~ ;

and p is a number ranging from 0 to 0.7 with the proviso that when R is methyl and $(n+m)$ is in the range of 0.7 to 1, the value of $n/(n+m)$ ranges from 0.05 to 0.45.

2. (Previously Presented) The adduct according to claim 1, wherein said $(n+m)$ is higher than 1.

3. (Previously Presented) The adduct according to claim 2, wherein said $(n+m)$ ranges from 2 to 5.

4. (Cancelled)

5. (Currently Amended) The adduct according to claim 1 ~~[[4]]~~, wherein said $n/(n+m)$ ranges from 0.15 to 0.35.

6. (Previously Presented) The adduct according to claim 1, wherein said p ranges from 0.01 to 0.6.

7. (Previously Presented) The adduct according to claim 6, wherein said p ranges from 0.01 to 0.4.

8. (Previously Presented) The adduct according to claim 1,

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wherein R is selected from the group consisting of a methyl, a C₃-C₁₀ saturated hydrocarbon, and derivatives thereof.

9. (Previously Presented) The adduct according to claim 1, wherein said ROH is selected from the group consisting of methanol, propanol, isopropanol, butanol, sec-butanol, tert-butanol, pentanol, 2-methyl-1-pentanol, 2-ethyl-1-hexanol, phenol, 4-methyl-1-phenol, 2,6-dimethyl-1-phenol, cyclohexanol, cyclopentanol, and derivatives thereof.

10. (Cancelled)

11. (Previously Presented) A method for the polymerization of olefins comprising contacting a transition metal compound comprising at least one transition metal selected from the group consisting of Ti, Zr, Hf, Rf, V, Nb, Ta, Db, Cr, Mo, W, and Sg with said adduct according to claim 1.

12. (Previously Presented) The method according to claim 11, said transition metal compound is a titanium compound of formula $Ti(OR)_nX_{y-n}$ wherein,

n is between 0 and y;

y is the valence of titanium;

X is a halogen; and

R is selected from the group consisting of an alkyl radical having 1-8 carbon atoms, a group having the formula COR, and derivatives thereof.

13. (Previously Presented) The method according to claim 12, wherein said titanium compound is selected from the group

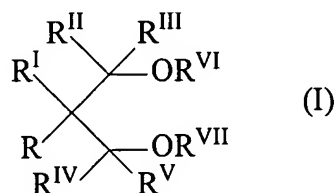
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consisting of TiCl_3 , TiCl_4 , $\text{Ti}(\text{OBu})_4$, $\text{Ti}(\text{OBu})\text{Cl}_3$, $\text{Ti}(\text{OBu})_2\text{Cl}_2$, and $\text{Ti}(\text{OBu})_3\text{Cl}$.

14. (Previously Presented) The method according to claim 11, further comprising contacting an electron donor compound with said transition metal compound and said adduct.

15. (Previously Presented) The method according to claim 14, wherein said electron donor is selected from the group consisting of alkyl and aryl esters of mono and polycarboxylic acids.

16. (Previously Presented) The method according to claim 14, said electron donor is a 1,3 diether of formula:



wherein R, R^{I} , R^{II} , R^{III} , R^{IV} and R^{V} are the same or different, and are selected from the group consisting of hydrogen, hydrocarbon radicals having from 1 to 18 carbon atoms, and derivatives thereof, and R^{VI} and R^{VII} are the same or different, and are hydrocarbon radicals having from 1 to 18 carbon atoms, and derivatives thereof.

17. (Previously Presented) The method for the polymerization of olefins according to claim 11, wherein said adduct is subjected to a dealcoholation treatment before being

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contacted with said transition metal.

18. (Previously Presented) A method according to claim 11, further comprising contacting an aluminium alkyl compound with said transition metal compound and said adduct.

19. (Currently Amended) The method of claim 18, [[;]] wherein said aluminum compound is an Al-trialkyl compound.

20. (Previously Presented) The method of claim 19 further comprising an external donor.

21. (Currently Amended) The method of claim 20, wherein said external donor is a silane compound comprising at least one Si-OR link_{[[,]]} of formula $R_a^1 R_b^2 Si(OR^3)_c$, wherein

a and b are an integer from 0 to 2;

c is an integer from 1 to 3, the sum (a+b+c) is 4; and

R^1 , R^2 , and R^3 , are alkyl, cycloalkyl or aryl radicals with 1-18 carbon atoms.

22. (Previously Presented) A method for polymerizing olefins of formula $CH_2=CHR$, wherein R is selected from the group consisting of hydrogen, a hydrocarbon radical having 1-12 carbon atoms, and derivatives thereof, in the presence of said catalyst according to claim 18.

23. (Previously Presented) The method of claim 16, wherein one or more of said $R-R^{VII}$ groups form a cyclic link.

24. (New) An adduct comprising $MgCl_2 \bullet (EtOH)_m (ROH)_n (H_2O)_p$

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wherein,

R is a C₁-C₁₅ hydrocarbon group excluding ethyl, optionally substituted with at least one group comprising a heteroatom;

n and m are indexes higher than 0 satisfying the equation $0.05 \leq n/(n+m) \leq 0.95$, and (n+m) ranges from 2 to 5;

and p is a number ranging from 0 to 0.7 with the proviso that when R is methyl and (n+m) is in the range of 0.7 to 1, the value of n/(n+m) ranges from 0.05 to 0.45.

25. (New) The adduct according to claim 24, wherein said (n+m) is higher than 1.

26. (New) The adduct according to claim 24, wherein said n/(n+m) ranges from 0.1 to 0.4.

27. (New) The adduct according to claim 24, wherein said n/(n+m) ranges from 0.15 to 0.35.

28. (New) The adduct according to claim 24, wherein said p ranges from 0.01 to 0.6.

29. (New) The adduct according to claim 28, wherein said p ranges from 0.01 to 0.4.

30. (New) The adduct according to claim 24, wherein R is selected from the group consisting of a methyl, a C₃-C₁₀ saturated hydrocarbon, and derivatives thereof.

31. (New) The adduct according to claim 24, wherein said ROH

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is selected from the group consisting of methanol, propanol, isopropanol, butanol, sec-butanol, tert-butanol, pentanol, 2-methyl-1-pentanol, 2-ethyl-1-hexanol, phenol, 4-methyl-1-phenol, 2,6-dimethyl-1-phenol, cyclohexanol, cyclopentanol, and derivatives thereof.

32. (New) A method for the polymerization of olefins comprising contacting a transition metal compound comprising at least one transition metal selected from the group consisting of Ti, Zr, Hf, Rf, V, Nb, Ta, Db, Cr, Mo, W, and Sg with said adduct according to claim 24.

33. (New) The method according to claim 32, said transition metal compound is a titanium compound of formula $Ti(OR)_nX_{y-n}$ wherein,

n is between 0 and y;

y is the valence of titanium;

X is a halogen; and

R is selected from the group consisting of an alkyl radical having 1-8 carbon atoms, a group having the formula COR, and derivatives thereof.

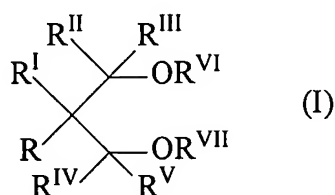
34. (New) The method according to claim 33, wherein said titanium compound is selected from the group consisting of $TiCl_3$, $TiCl_4$, $Ti(OBu)_4$, $Ti(OBu)Cl_3$, $Ti(OBu)_2Cl_2$, and $Ti(OBu)_3Cl$.

35. (New) The method according to claim 32, further comprising contacting an electron donor compound with said transition metal compound and said adduct.

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36. (New) The method according to claim 35, wherein said electron donor is selected from the group consisting of alkyl and aryl esters of mono and polycarboxylic acids.

37. (New) The method according to claim 35, said electron donor is a 1,3 diether of formula:



wherein R, R^I, R^{II}, R^{III}, R^{IV} and R^V are the same or different, and are selected from the group consisting of hydrogen, hydrocarbon radicals having from 1 to 18 carbon atoms, and derivatives thereof, and R^{VI} and R^{VII} are the same or different, and are hydrocarbon radicals having from 1 to 18 carbon atoms, and derivatives thereof.

38. (New) The method for the polymerization of olefins according to claim 32, wherein said adduct is subjected to a dealcoholation treatment before being contacted with said transition metal.

39. (New) A method according to claim 32, further comprising contacting an aluminium alkyl compound with said transition metal compound and said adduct.

40. (New) The method of claim 39, wherein said aluminum compound is an Al-trialkyl compound.

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41. (New) The method of claim 40 further comprising an external donor.

42. (New) The method of claim 41, wherein said external donor is a silane compound comprising at least one Si-OR link of formula $R_a^1R_b^2Si(OR^3)_c$, wherein

a and b are an integer from 0 to 2;

c is an integer from 1 to 3, the sum (a+b+c) is 4; and

R^1 , R^2 , and R^3 , are alkyl, cycloalkyl or aryl radicals with 1-18 carbon atoms.

43. (New) A method for polymerizing olefins of formula $CH_2=CHR$, wherein R is selected from the group consisting of hydrogen, a hydrocarbon radical having 1-12 carbon atoms, and derivatives thereof, in the presence of said catalyst according to claim 39.

44. (New) The method of claim 37, wherein one or more of said $R-R^{VII}$ groups form a cyclic link.

45. (New) An adduct comprising $MgCl_2 \cdot (EtOH)_m(ROH)_n(H_2O)_p$ wherein,

R is a C_1 - C_{15} hydrocarbon group excluding ethyl, optionally substituted with at least one group comprising a heteroatom;

n and m are indexes higher than 0, satisfying the equations $(n+m) \geq 0.7$ and $0.05 \leq n/(n+m) \leq 0.95$;

and p ranges from 0.01 to 0.6 with the proviso that when R is methyl and (n+m) is in the range of 0.7 to 1, the value

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of $n/(n+m)$ ranges from 0.05 to 0.45.

46. (New) The adduct according to claim 45, wherein said $(n+m)$ is higher than 1.

47. (New) The adduct according to claim 46, wherein said $(n+m)$ ranges from 2 to 5.

48. (New) The adduct according to claim 45, wherein said $n/(n+m)$ ranges from 0.1 to 0.4.

49. (New) The adduct according to claim 45, wherein said $n/(n+m)$ ranges from 0.15 to 0.35.

50. (New) The adduct according to claim 45, wherein said p ranges from 0.01 to 0.4.

51. (New) The adduct according to claim 45, wherein R is selected from the group consisting of a methyl, a C_3 - C_{10} saturated hydrocarbon, and derivatives thereof.

52. (New) The adduct according to claim 45, wherein said ROH is selected from the group consisting of methanol, propanol, isopropanol, butanol, sec-butanol, tert-butanol, pentanol, 2-methyl-1-pentanol, 2-ethyl-1-hexanol, phenol, 4-methyl-1-phenol, 2,6-dimethyl-1-phenol, cyclohexanol, cyclopentanol, and derivatives thereof.

53. (New) A method for the polymerization of olefins comprising contacting a transition metal compound comprising

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at least one transition metal selected from the group consisting of Ti, Zr, Hf, Rf, V, Nb, Ta, Db, Cr, Mo, W, and Sg with said adduct according to claim 45.

54. (New) The method according to claim 53, said transition metal compound is a titanium compound of formula $Ti(OR)_nX_{y-n}$ wherein,

n is between 0 and y;

y is the valence of titanium;

X is a halogen; and

R is selected from the group consisting of an alkyl radical having 1-8 carbon atoms, a group having the formula COR, and derivatives thereof.

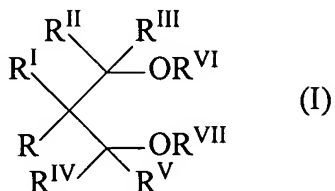
55. (New) The method according to claim 54, wherein said titanium compound is selected from the group consisting of $TiCl_3$, $TiCl_4$, $Ti(OBu)_4$, $Ti(OBu)Cl_3$, $Ti(OBu)_2Cl_2$, and $Ti(OBu)_3Cl$.

56. (New) The method according to claim 53, further comprising contacting an electron donor compound with said transition metal compound and said adduct.

57. (New) The method according to claim 56, wherein said electron donor is selected from the group consisting of alkyl and aryl esters of mono and polycarboxylic acids.

58. (New) The method according to claim 56, said electron donor is a 1,3 diether of formula:

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wherein R, R^I, R^{II}, R^{III}, R^{IV} and R^V are the same or different, and are selected from the group consisting of hydrogen, hydrocarbon radicals having from 1 to 18 carbon atoms, and derivatives thereof, and R^{VI} and R^{VII} are the same or different, and are hydrocarbon radicals having from 1 to 18 carbon atoms, and derivatives thereof.

59. (New) The method for the polymerization of olefins according to claim 53, wherein said adduct is subjected to a dealcoholation treatment before being contacted with said transition metal.

60. (New) A method according to claim 53, further comprising contacting an aluminium alkyl compound with said transition metal compound and said adduct.

61. (New) The method of claim 60, wherein said aluminum compound is an Al-trialkyl compound.

62. (New) The method of claim 61 further comprising an external donor.

63. (New) The method of claim 62, wherein said external donor is a silane compound comprising at least one Si-OR link of formula R_a¹R_b²Si(OR³)_c, wherein

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a and b are an integer from 0 to 2;
c is an integer from 1 to 3, the sum (a+b+c) is 4; and
R¹, R², and R³, are alkyl, cycloalkyl or aryl radicals
with 1-18 carbon atoms.

64. (New) A method for polymerizing olefins of formula CH₂=CHR, wherein R is selected from the group consisting of hydrogen, a hydrocarbon radical having 1-12 carbon atoms, and derivatives thereof, in the presence of said catalyst according to claim 60.

65. (New) The method of claim 58, wherein one or more of said R-R^{VII} groups form a cyclic link.